



٣٠٠٠٠٠٨

# مجلة جامعة أمّ القريّ

## مجلة فضيلة البيحوث العلمية المحكمة

السنة السادسة · العدد الثامن · العام ١٤١٤هـ / ١٩٩٣م



٣٠٠٠٠٠٨-٧

# أصوات اللغة الانجليزية : عدم التطابق في الرسم والعدد

سليمان غيث الهاشمي الأمير\*

---

\* خريج جامعة جورج تاون عام ١٤٠٢ هـ وأصبح عضوا بقسم اللغة الانجليزية في السنة نفسها ، أصبح رئيسا للقسم عام ١٤١٠ هـ وهو الآن في سنة التفرغ العلمي .

# The vowel sounds in English : A lack of uniformity on transcription and number.

**Sulaiman Ghaith.**

## **ABSTRACT**

The transcription of the vowel sounds in English may seem confusing to an uninitiated phonetician. This is due to the fact that well-known phoneticians want to account for the vowel sounds in their own dialects only. For such phoneticians, the number of vowel sounds may not exceed twenty two. Others try to account for vowel sounds in their own speech and that of speakers of other dialects. This always leads to variation in number and symbolization. Moreover, certain vowel sounds, in the process, are highlighted and others are ignored. Some others i.e., phoneticians, employ different methods of analysis. Certain vowel features may be accepted by one phonetician while, at the same time, rejected by another. This also decreases the chances for conformity on the number and transcription, and consequently, the actual articulation, of the vowel sounds in English. Modified versions of one type of symbolization or another make such chances even slimmer. This article aims at clarifying these issues and explaining why such differences exist.

The vowel sounds in English: A lack of  
uniformity on number and transcription.

Sulaiman Ghaith.

### Introduction:

As instructors of English, we are sometimes baffled by looks of amazement on the faces of our students especially when we transcribe a word, for pronunciation purposes, on the board. Good students start looking at each other as if they want to say that there is something wrong with our transcription. Such amazement may be caused by the fact that certain instructors may transcribe a word like nice as [næɪs]. Another may represent the same word as [nays] ; a third as [næɪs] or even as [nəɪs]. In other words, such amazement may be due to the fact that some instructors may be influenced by one transcriptional system or another. It seems that our students would even lose faith in us if we told them that a word like **obdurate** could be transcribed in eight different ways. Moreover, textbooks, whether in phonetics or the teaching of pronunciation, portray such confusion in their treatment of the

vowel sounds in English. In some of such textbooks the material and exercises are presented in such a way that indicate that only one system of phonetic transcription and pronunciation exists. (See O'Conner, 1973). In others, certain vowel sounds are ignored (Crane et al, 1981). In still some others, students are asked to give different renditions of pronunciation and transcription, depending on the varieties that the students speak (Kreidler, 1989).

### **The problem:**

Our problem can be expressed in the form of the following inquiries:

Do phoneticians use different systems of symbolization for English vowels? If they do, are the differences in symbolization merely different versions of transcription? In other words, do phoneticians try to account for the same data, using different types of transcription? Or, do they want to account for different data, and hence, there are differences in symbolization and number? Or, do they perceive the same data in different

ways? Are there any reasons for such differences if they exist? What are these reasons?

### **Objectives of the study:**

The main aims of this study are:

1. To point out, to a certain extent, some of the characteristics and differences among some of the existing phonetic systems used in the transcription of the vowel sounds in English.
2. To explain why these systems of symbolization lack uniformity in transcription, which is very often a reflection of pronunciation, and number.

It is hoped, in an indirect way though, that the study will inculcate in novice phoneticians and prospective Arab teachers of EFL an awareness of the ramification of the problems involved in the transcription and actual pronunciation of the vowel sounds in English.

### **Methodology:**

In order to achieve the above-mentioned

objectives , we will attempt to delineate the main characteristics of some of the transcriptional systems of the vowel sounds in English that had been developed over the years. We will also try to point out the differences among these systems.

Towards the end of the article , we will give an account of why such systems vary in number and symbolization. Due to the fact that the issues involved are interwoven and, at the same time, so varied that they may tax the readers' memory, we recommend that the readers constantly refer to the charts appended to the article in order to fully understand the thrust of the following presentation.

### **Presentation:**

A leading phonetician whose main concern was to transcribe British speech, or what is known as received pronunciation, is Daniel Jones. Following the IPA ( International Phonetic Alphabet ), Jones (1940) uses roughly seventeen symbols for simple

vowels and diphthongs. ( For more detail, see Chart 1). However, the number of vowels increases in certain cases. This is due to the fact that Jones acknowledges the existence of complex vowels i.e., simple vowels such as [i], [u], or [o] ending with a half glide, as [ə], that results in the movement of the tongue towards the center , especially when an r is dropped. (See Chart 1.B ). A major trait of Jones' symbolization system is the use of double dots [:]. These dots stand for length. Sleet and slit are represented as [sli:t] and [slit] respectively. Double dots are also used for differentiating tense vowels from lax ones. The word **curb** is symbolized as [kə:b] i.e., with an r-loss, but the vowel in the last syllable of writer is represented by a mere schwa [ə].

Trying to account for the same data, i.e., British speech, Ward (1945) adopted a transcriptional system which is almost similar to that of Jones except for some minor differences. In Jones' rendition of the vowel sounds of British English, the mid central vowel in the last syllable of



author is [ə]. This vowel is always lax and unstressed. When such a vowel is tense or stressed, it is rendered as [ə:] by Jones. Ward uses [ə] for the unstressed vowel sound and [ɜ] for its stressed counterpart. Jones' [bɜ:t] for Bert, is Ward's [bɜ t] i.e., with an r-loss in both cases. Where Jones uses double dots for length, Ward does not. Jones' [bi:] for bee is Ward's [bi]. And finally, where Jones uses [ɔ], Ward uses [ɒ]. Jones' [kɒt], for the British pronunciation of cot, is Ward's [kɒ t]. In other words, these differences are merely different ways of transcribing the same data. ( See Chart. 2 ).

Kenyon (1940), and Kenyon & Knott (1951), who wanted to give a rendition of the vowel sounds of Mid-Western American English, followed almost closely in the footsteps of Ward. Some differences, however, must be pointed out. First, Kenyon & Knott do not show any gliding in the transcription of tense monophthongs as in bait [bet], and boat [bot], while Ward does. Second, they consider [ɔ] and [ɜ] as in order [ordɔ] and curt [kɜ t], to be

phonetically different, i. e., retroflex vowels, from Ward's [ə] and [ɜ]. They also use [ə] and [ɜ], with an r-loss, to account for other pronunciations. Third, as pointed out by Gleason (1961:319), Kenyon & Knott transferred the value of [ʌ], as used in British English in a word such as cup [kʌp], to the Mid-Western variety, although the rendition of the vowel sound, [ʌ], in Mid-Western American English is somewhat higher than its British counterpart. Fourth, they use [ɑ] for representing the vowel sound in the first syllable of both father [fɑðə] and brother [brɑðə], though such vowel sounds in these words are different from each other in other dialects of Mid-Western American English. ( See Chart 3 ).

The transcriptional system for the vowel sounds in English developed by Block & Trager (1942) and later refined by Trager & Smith (1951) is based on the idea that English, with the exception of real diphthongs such as [ɔɪ], [aʊ], and [aɪ], has long vowel sounds and short ones. Long vowel sounds are diphthongized while short

ones are not. Vowel sounds as in **bee** and **go** are diphthongized and transcribed as [b<sup>i</sup>y] and [g<sup>o</sup>u] by Trager & Smith. Vowel sounds as in **boy**, **buy** and **bow** (v) are always diphthongs. In their view, short vowel sounds are really true vowels that English has. These short vowel sounds can be represented in words as **bit** [b<sup>i</sup>t], **bet** [bet], **bat** [b<sup>a</sup>t], **just** (adv) [j<sup>i</sup>st], **just** (adj) [j<sup>a</sup>st], **put** [put], **car** [k<sup>a</sup>r], **cot** [k<sup>o</sup>t], and **whole** [hol]. It should be noted, here, that the vowel sound in **just** (adv) [j<sup>i</sup>st] is the same as the one in the first syllable of **minute**. It is considered to be a high central vowel that contrasts with both [i] as in **bit** and [ə] as in **just** (adj), according to Trager & Smith. The vowel sound in **whole** [hol] and **road** [rod] represents a short vowel sound that is different from the diphthongized one used in **hole** [howl] and **rode** [rowd]. All in all, the short vowels are nine. With the addition of three glides, namely [w], [y], and [h], a thirty-six vowel system was devised by Trager & Smith. In other words the system consists of nine purely

short vowels, nine short ones ending with [w], nine short ones ending with [y], and nine short ones ending with [h]. The [h] is used as a glide in American dialects in which an [r] is dropped. Examples are *cord* [kɔhd], *barn* [bɑhn] and *light* [lɑht] , as used in Virginia , substituting for the glide [y]. When preceded by a vowel , [h] takes the same mouth configuration , i.e., in articulation, as that of the preceding vowel. Trager & Smith claim, of course, that their vowel system can account for all dialectal differences. (See Chart 4).

In his treatment of American dialects, Thomas (1958) envisages more vowel sounds, and consequently more symbols, than those proposed by Trager & Smith. Thomas, at the same time, draws our attention to other phonetic features and vowel qualities not covered by Trager & Smith. First and foremost, Thomas (1958) differentiates among [ɑ], [ä], and [æ]. For him, [ɑ] is a low back central vowel used by some speakers in Upstate New York in words such as *arm*, *cart*, *spa*, and, *shah*.

The vowel is also used in words such as **stop**, **lock** and **odd**. [ɒ] is considered to be a low central or front central lax vowel used in the first syllable of **barrel**. [æ] is a low front lax vowel used in **man** and **cat** in American English. As reported by Thomas, **barrel** can be transcribed as [bærɪl] in some dialects, or as [bæɪl] in others. The three vowels are exemplified in the word **rather**, which can be produced as [ræðɹ] by some speakers, or [rɑðɹ] to rhyme with **father**, by other speakers or compromised as [rɑðɹ] by a third group of speakers. Incidentally, Thomas makes a parallel distinction along this front-central-back continuum, among [æɪ], [ɑɪ], and [ɑɪ] (Thomas 1958: 141). The word **ice** can be given three renditions such as [æɪs], [ɑɪs], and [ɑɪs]. Second, Thomas draws our attention to the existence of another notable vowel sound, which is different from the previous three in quality and symbolization. It occurs in **for**, [fɒr], as pronounced by some American speakers. This vowel is defined as a low back lax vowel. It has less rounding than [ɔ]. [ɔ], with more round-

ing than [ɔ], is also used in the pronunciation of for [fɔr] by other speakers. Some people pronounce forest as [fɔr st], i.e., the first syllable rhyming with for, with some rounding, or as [f r st], the first syllable rhyming with far [fɑr], without any rounding, or compromised as [fɔr st]. Water is also pronounced in three different ways, i.e., as [wɔtə], [wɑtə], or [wɒtə], depending on dialectal variations. It should be noted in this respect, that [ɔɪ], as a diphthong, occurs as a diaphone of [ɑɪ] as in ice [aɪs], in some dialects, and not as a diaphone of [ɔɪ] as in boy. However, [oɪ] is used as a diaphone of [ɔɪ] in some areas of the U.S.

Third, a phonetic feature, pointed out by Thomas, is that of fronting. It is shown by two dots over a vowel symbol. The second element of the diphthong in house [hɑʊ̯s] or out [aʊ̯t] is fronted in Eastern Maryland and North Carolina. Fronted [ö], as a diaphone of [o], also occurs before [r] and [l] as in roar [rö̯r] or role [rö̯l] in New York City (Thomas 1958:208). Other pho-

neticians use horizontal arrows for showing the fronting and backing of vowels (Crane, 1981:65).

Fourth, another phonetic feature of Thomas' transcription of vowel sounds in dialects of American English is that of raising. This is shown by an accent grave over a vowel symbol. In the pronunciation of such vowels, the tongue is raised so that it reaches almost the level of the next higher vowel. The vowel in *rain* [ren], for example, has a raised diaphone in areas of Wisconsin. It is transcribed as [rễ]. In this case [ễ] almost reaches the level of [i] as in *bee* [bi]. Words such as *lake* and *day* are also pronounced with a raised vowel sound. They are rendered as [lễk] and [dễɪ], respectively, in South Carolina. All in all, Thomas lists forty-four vowel symbols that can be used in accounting for vowel variations in American dialects. ( For further information, see Chart 5).

Though vowel length in English has been tackled by Jones, and others, it has not been given sufficient treatment. In his contrast of English

and German, Moulton (1963:76) suggests that the vowel sounds in English tend to be short if they occur before voiceless consonants, half long before voiced consonants, and long if they are free or unchecked. For Moulton, **beat** is transcribed as [bit], **bead** as [bi·d] and **bee** as [bi:]. The use of one dot indicates that a vowel is half long. Two dots mean that a vowel is long. Moulton also points out that the diphthongization of simple vowels increases in the speech of Americans along high-mid-low and short-halflong-long dimensions. According to Moulton, phonetically correct renditions of the previous words, i.e., **beat**, **bead**, and **bee**, are [bit], [bi·d] and [bi:], respectively. In other words, there is neither length nor upgliding in the pronunciation of **beat**, but there are a half long vowel and an upglide in **bead**, and a completely diphthongized long vowel in **bee**. Upgliding also affects every lax vowel in certain areas of the U.S. Words such as **beg**, **bag**, and **dog** are rendered as [be<sub>1</sub>g], [bæ<sub>1</sub>g] and [dɔ<sub>1</sub>g] by some speakers. Ingliding or 'centering', i.e., gliding towards a



mid-central tongue position, occurs before colored l's in words such as feel, fill, fail, fell , and pal. These words are phonetically symbolized as [fiə<sup>1</sup>l], [fi<sup>1</sup>ə<sup>1</sup>l], [feə<sup>1</sup>l], [fe<sup>1</sup>ə<sup>1</sup>l], and [pæ<sup>1</sup>l] by Moulton. ( For more information, see Kreidler: 1989).

The two vowel sounds of [ɔ] and [o] as in bought and boat are quite distinct. This opposition is maintained in words such as warring [wɔ<sup>1</sup>rɪŋ] and boring [bo<sup>1</sup>rɪŋ] in some areas of the U.S. However such an opposition between the two previous vowels is neutralized before an intervocalic [r] in other areas of the U.S. In other words , the two distinct vowels tend to have the same quality of lip rounding, and mouth shape if used before an intervocalic [r]. ( For more information on neutralization, see Hyman:1975:69 ). Other examples include the words Mary, merry, and marry. In some areas of the U.S., the three words are pronounced with three different vowel sounds in the first syllable, i.e., [e<sup>ə</sup>], [e<sup>1</sup>], and [æ<sup>1</sup>], respectively. In other areas, the contrast between the first two words is neutra-

lized and the words are pronounced with a vowel sound similar to [e]. In some other areas, the contrast between the last words is lost, and both are pronounced in a similar fashion to **merry** [meriy]. In still other areas, all the three words are pronounced with a neutralized vowel in the first syllable of each word (Moulton, 1963:78).

Variation in vowel sounds, due to a lack of contrast in unstressed positions, is common in English. This occurs before stressed syllables at the beginning of words. The vowel of the first syllable from the left in **pre<sup>1</sup>pare**, **de<sup>1</sup>fend**, and **decei<sup>1</sup>ve** can be represented as [ɪ], [ɨ] or [ə]. (See the system developed by Trager & Smith). Words such as **vacation**, **July**, and **Korea** can be symbolized as [veykeyʃə<sup>1</sup>n], or [vəkeyʃə<sup>1</sup>n] for the first word, [juwlay], [julay] or [jəlay] for the second and [kowriyə] or [kəriyə] for the third. The same type of variation occurs after stressed syllables, i.e., in unstressed positions. The vowel in the second syllable from the left in **miti<sup>1</sup>gate** and **cā<sup>1</sup>ndidate**, can be transcribed as [i], [ɨ] or [ə]. Words such

as **argument** and **popular** can be pronounced as [ɑrgumənt] or [ɑrgəmənt] for the first word and as [pɒpyulər] , [pɒpulər] or [pɒpələr] for the second. The same phenomenon occurs in the final syllables of words such as **easy** and **happy**, **continue** and **issue**. The vowels in the final syllables of the first two words can be transcribed as [iy] or [i]. The vowels in the final syllable of the last two words can be rendered as [uw], [u] or even [ɔ]. (For further investigation, see Kreidler: 1989).

In the previous part, we have tried to give the reader a glimpse of some of the characteristics and differences in the phonetic systems used in the transcription of the vowel sounds in English by some well-known phoneticians. In this part, we will try to point out some of the reasons that account for such differences in the symbolization and number of such vowel sounds. These reasons have to be deduced and imbibed from the previous discussion.

One reason, for such differences, is the variety of domains or territories covered by these

phoneticians. Jones (1940) and Ward (1945) were interested in the rendition of the English of the upper classes in England. Kenyon (1940) was concerned about dialects in Mid-Western American English. Trager & Smith (1957) and Thomas (1958) were absorbed in devising a vowel system that could account for sounds in dialects of American English.

If one examines the different systems developed by such phoneticians, one will find out that some of these systems partially overlap, i.e., in the sense that the vowel sounds in words such as beat, bit, bait, bet, bat, boot, put, boat, bought, bite, bough, and boy can be accounted for in one way or another by these systems. In such a case, the differences are, to some extent, those of symbolization. In other cases, some vowel sounds can not be accounted for by one system or another. This is due to the difference in the type of phonetic data treated by proponents of some of these phonetic systems. Even though Trager & Smith (1957) claim that their system can account for all dialectal variations, nevertheless, their system fails to

account for fronted and raised vowels used in some dialects ( For further information , see Thomas: 1958). Kenyon & Knott's system (1951) also fails to account for differences , in vowel tenseness, between **whole** and **hole**, **road** and **rode**, even though these words are not homophonous for some speakers of English. It also fails to account for cases of vowel simplification and replacement ( For more information, see Thomas, 1958:210, Abel, 1953: 247-258).

A second reason for differences in the symbolization and number of vowel sounds in English , which may be related to the first one, is the proliferation of adaptations of some of the phonetic systems mentioned before. These adaptations are usually used in the teaching of introductory courses in phonetics and pronunciation. Authors of these adaptation advocate the use of modified versions of one system or another (See O'Conner, 1973, Palmer , 1968 and Gimson, 1980). Some even ignore certain vowel sounds. Crane and his collaborators ( Crane et al, 1981:65 ) do not account for the vowel sound

used in **bird**. They do not even mention whether it can be accounted for by any other vowel symbol exemplified in their phonetic chart. These modified versions really increase the chances for differences in the transcription and number of vowel sounds in English.

A third reason for differences in the symbolization and number of vowels can be attributed to the different methods of analysis employed by such phoneticians. Certain phonetic features may be considered important ones by one phonetician, while they may be ignored by another. On the one hand, Kenyon (1951) rejects the notion of gliding in vowel sounds except for diphthongs such as [dʊ], [ɔɪ], and [ɑɪ]. However, he accepts the notion of vowel quality. For Kenyon, a certain vowel is pronounced correctly as long as the tongue is in a specific position, and when the mouth and the lips take a specific shape. A vowel like [ɪ] as in *fill* will remain the same even if it is made long, for example, by a singer in a song. All in all, Kenyon recognizes twenty-one vowels. On the other

hand, Trager & Smith (1951) make extensive use of gliding. Twenty-seven, out of thirty-six of their vowels, end in glides. Jones (1940) follows the vowel system developed by the I.P.A. He borrows the concept of cardinal vowels from that system. Eight vowels, namely, [i:], [æ], [u:], [ɔ], [e], [ɛ], [oʊ], [ɔ:] are considered to be cardinal ones. These vowels constitute the two highest and lowest front ones, and the two highest and lowest back ones. The other four vowels are produced, in the mouth, within the boundaries of the first four. All other vowels, not mentioned above, are described, in terms of production, with reference to the eight cardinal ones. Jones (1940) accepts the notion of front gliding, back gliding, and center gliding. The number of vowel units, on the basis of such an analysis for Jones' dialect, is twenty-two.

A fourth reason, for differences in the symbolization and number of vowel sounds in English, which is related to the previous one, is the realization by some phoneticians of the dynamic nature of sounds in relation to each other in a language.

Such phoneticians (Moulton:1962 , Kreidler: 1989) emphasize that any correct , phonetic rendition of any vowel sound in English should take note of the environment surrounding each vowel sound. The different degrees of length, full gliding, half gliding, the absence of gliding, variation and the loss of distinction among some vowel sounds can not be accounted for unless the environment surrounding such vowel sounds is determined. This realization of the dynamic nature of sounds in a language is not quite new, but it has been ignored by some phoneticians. To view vowel sounds as independent entities would obscure such phonetic information.



## REFERENCES

- Abel, James W. 1953, "The phonetic context of [ɔ]"  
Speech Monographs, Vol XX, pp. 247-52.
- Block, B., and G. L. Trager, 1942, Outline of  
Linguistic Analysis (Linguistic Society of  
America: Special Publications), Waverly Press  
, Baltimore, U.S.A.
- Crane, L. B., Edward Yeager, and Ranald Whitman,  
1981, An Introduction to Linguistics, Little,  
Brown, and Company, Boston.
- Gimson, A. C., 1980, An Introduction to the Pronun-  
ciation of English, 3rd edition, London,  
Edward Arnold.
- Gleason, Henry Allen, 1961, An Introduction to  
Descriptive Linguistics, Holt, Rinehart and  
Winston, New York.
- Hoard, J. E., 1971, Aspiration, Tenseness and Syl-  
labification in English, Language, 47: 33-  
40.
- Hyman, L. M., 1975, Phonology: Theory And Practice,  
Holt, Rinehart, and Winston, New York.
- Jones, Daniel, 1940, An Outline of English Phone-  
tics, Dutton, New York.
- 1950, The Pronunciation of English, Cambridge  
University Press, Cambridge, England.
- 1976, An Outline of English Phonetics, 9th  
editon, Cambridge, Cambridge University  
Press.
- Kenyon, J. S., 1940, American Pronunciation: A  
Textbook of Phonetics for Students of English,  
George Wahr, Ann Arbor, Michigan.

- Kenyon, J., and Thomas Knott, 1951, A Pronouncing Dictionary of American English, The Collegiate Press, Menasha, Wisconsin.
- Kreidler, C. W, 1989, The Pronunciation Of English: A Course Book in Phonology, New York. Basil Blackwell Inc.
- Moulton, W., 1962, The Sounds of English and German, University of Chicago Press, Chicago.
- O'Conner, J. D., 1973, A Phonetic Drill Reader, Cambridge University Press, Cambridge, London.
- Palmer, Harold., 1968, A Grammar of Spoken English, 3rd edition, Oxford University Press, London.
- Poldauf, Ivan., 1984, English Word Stress: A Theory of Word Stress in English, Oxford, Pergamon.
- Thomas, C. K., 1947, An Introduction to the Phonetics of American English, Ronald Press, New York.
- Trager , G. L., and H. L. Smith, 1951, An Outline of English Structure (Studies in Linguistics: Occasional Papers, 3 ), Battenburg Press, Norman, Oklahoma.
- Ward, I. C., 1945, The Phonetics of English, W. Heffer & Son, Cambridge, England.
- Wolfram, Walt and Johnson, Robert, 1982, Phonological Analysis: Focus on American English, Washington, Center for Applied Linguistics.

## Chart 1.A.

Daniel Jones.

[i:]beat			[u:]boot
[i]bit			[u]put
[eɪ]bait	[ə:]Bert	[ ]aroma	[ou]no
[ɛ]bet			[ɔ:]caught
[æ]bat	[ɑ:]cart		[ɔ]pot

## Diphthongs

[aɪ]buy	[aʊ]now	[ɔɪ]boy
---------	---------	---------

Chart 1.B.  
Daniel Jones.

[iə]fear	[ʊə]tour
[ɛə]fair	[ʊ̃ə]influence
	[uɪ]iss <u>u</u> ing
	[ɔə]tore

-----

## Chart 2.

Ida Ward.

[i]beat			[u]boot
[ɪ]bit			[ʊ]put
[eɪ]bait	[ɜ]bird	[ə]about	[oʊ]most
[ɛ]bet	[ʌ]some		[ɔ]ward
[æ]bat	[ɑ]part <u>ic</u> le		[ɒ]con <u>du</u> ct

## Diphthongs

[aɪ]buy	[aʊ]now	[ɔɪ]boy
---------	---------	---------

## Other vowels

[ɪə]here, [ɛə]there, [ɔə]more, [ʊə]moor,  
[aɪə]shire

-----

## Chart 3.

Kenyon &amp; Knott.

[i]bee			[u]boot
[ɪ]bit			[ʊ]put
[e]bait	[ɜ]curt	[ɔ]mann <u>er</u>	[o]boat
	* [ ]cut *		
[ɛ]bet	[ɝ]curt	[ə]mann <u>er</u>	[ɔ]bought
[æ]bat	[ɑ]yard	[ɑ] palm	[ɒ]pot

## Diphthongs

[aɪ]might    [aʊ]how    [ɔɪ]hoist    [ɪʊ]few

-----

\* Vowel used in an r-less dialect.

## Chart 4.

Trager &amp; Smith.

[iʷ]new	[ɪʷ]new	[uʷ]new
[eʷ]know	[əʷ]know	[oʷ]know
[æʷ]now	[ɑʷ]now	[ɔʰ]gnaw
[ih]feel	[ih]first	[uh]fool
[eh]fail	[əh]first	[oh]fore
[æh]fad	[ah]far	[ɔʰ]for
[iy]bee	[ɪy]beat	[uy]push
[ey]bay	[əy]pike	[oy]boy
[æy]class	[ɑy]by	[ɔy]boy
[i]sis	[ɪ]such	[u]foot
[e]set	[ə]but	[o]whole
[æ]sat	[ɑ]hot	[ɔ]song

---

## Chart 5.

C. K. Thomas.

[ i ]beat		[ u ] boot
[ i ]bit		[ U ] put
[ e ]bait	* [ ɜ ]bird	[ ɔ ]boat
	[ ə ]butter	[ ɔ̃ ]butter
[ ɛ ]bet	[ ʌ ] cup	[ ɔ̃ ] bought
[ æ ]bat	[ ɔ̃ ]rather	[ ɑ̃ ]father
	[ ɑ̃ ]fatherr	[ ɔ̃ ]log

## Diphthongs

[ aɪ ]fly	[ aʊ ]house	[ ɔɪ ]boy
-----------	-------------	-----------

Other monophthongs and diphthongized diaphones

[ iɪ ]peel	[ aɪ ]ice	[ u̥ ] [ ʊ̥ ] [ ʊ̥ ] [ ʊ̥ ] luke
[ ɪɪ ]hit	[ ɜɪ ]fire	[ ɣ ]rue
[ ɪʊ ]milk	[ ɔɪ ]fly	
[ ɛɪ ]gaze	[ oɪ ]oil	[ oʊ ] [ ɔ̃ ] [ ɔ̃ ] [ ɔ̃ ] road

** [ ê ]		[ æʊ ] [ ɜʊ ]
[ êɪ ]rake	[ ɜɪ ]bird	[ æ̃ ] [ ã ] house
[ eɪ ]		[ ɜ̃ ] [ ʌ̃ ]

[ ɛʊ ]help

[ æɪ ]ask

\* vowels used in r-less dialects.

\*\* raised vowels.

\*\*\* fronted vowels.

[ ] a high back unrounded vowel as in French rue.

## ملخص البحث

إن عملية استخدام الرموز لرسم حروف العلة في اللغة الانجليزية قد تبدو غامضة وغير منظمة وخصوصا لطالب علم الأصوات لأن ذلك مرده إلى أن بعض علماء الأصوات المشهورين يلجأون إلى التقليل من عدد الأصوات وابرار المهم منها فقط حتى يستطيع طالب اللغة الانجليزية الالمام بها بسرعة . فبالنسبة لثل هؤلاء العلماء فإن عدد حروف العلة في اللغة الانجليزية لا يتجاوز الستة عشر صوتا . أما بالنسبة لبعض العلماء الآخرين وخصوصا أولئك الذين يريدون وضع نظام خاص بحروف العلة في لهجتهم وكذلك في اللهجات المختلفة الأخرى فإن عدد هذه الأصوات يتذبذب ويتراوح من اثنين وعشرين صوتا إلى اثنين وأربعين صوتا وأكثر من ذلك كما أن رسمها يختلف من عالم إلى آخر فيحدث هناك تشابه واختلاف على الرسم والنطق الفعلي ، كما أن بعض الأصوات تلقي اهتماما زائدا ويغفل البعض الآخر . كما أن بعض العلماء يهتم ببعض مزايا الأصوات وابرارها في الرسم ويهمل البعض الآخر نفس المزايا ، وكذلك بالنسبة لطرق التحليل فانها تختلف من عالم إلى آخر مما ينتج عنه ايجاد بلبلة لدى طالب علم الأصوات .

سيبين هذا البحث أوجه الشبه والاختلاف في جميع الأمور المذكورة آنفا كما سنعطي ملخصا شاملا لمراثياتنا حول بعض الشائكات في هذا الموضوع .